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Duane Marine Site: Disposal of PCB Sludge from Green Tank

Meeting, ERRD and ORC Staff

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File

Removal work at the site, undertaken by the Respondents to three administrative orders issued by EPA, is progressing toward a conclusion.

A question has arisen concerning the ultimate disposition of some 25,000 gallons of PCB-contaminated sludge, which was found at the bottom of the 250,000 gallon Green Tank on the site. The question is whether the sludge may be landfilled at an approved chemical waste landfill, or whether it must be incinerated.

After various intra-agency discussions of the question, a meeting was held to resolve the matter on the morning of November 15, 1985. Walter Mugdan, Acting Superfund Branch Chief and Deputy Regional Counsel, and Margaret Thompson represented the Office of Regional Counsel. William Librizzi, Director, and Raymond Basso and Janet Feldstein of the Site Investigation and Compliance Branch, represented the Emergency and Remedial Response Division.

The sludge in question has a concentration of about 210 parts per million (ppm) PCBs. It was found in the tank with two separate phases of other PCB-contaminated materials, namely, an aqueous phase and an oil phase. Preliminary test results, which are to be verified or adjusted by analyses of recently taken samples, indicate concentrations of approximately 220 ppm PCBs in the aqueous phase and approximately 900 ppm in the oily phase.

Question of law: TSCA Regulations

The PCB regulations promulgated under TSCA at 40 C.F.R. Part 761 indicate that where the question of disposal arises, the concentration usually is the determining factor. The regulation that is most nearly on point says that, ordinarily, industrial sludges containing 50 to 500 ppm PCBs may be either landfilled or incinerated, while sludges containing more than 500 ppm must be incinerated. 40 CFR §761.60(a)(5).

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The regulations also embody a general prohibition against dilution of PCB liquids for the purpose of avoiding the incineration requirement. In particular, the regulation at 40 C.F.R. §761.60 (g)(2) provides instructions for "[o]wners or users of waste oil" who wish to determine the PCB concentration of waste oil, in a situation where waste oil from more than one source is to be collected into a common container, and compliance with the marking and disposal requirements is their objective. Given those facts, the regulation is clear: if any PCBs with a concentration of 500 ppm or greater have been added to the container, then "the total container contents" must be considered to have a PCB concentration of 500 ppm or greater.

A cursory reading of this regulation might produce a conclusion that anything in a tank with PCB oil of a concentration of 900 ppm would have to be incinerated. There are, however, significant facts that distinguish the case of an abandoned tank at a Superfund site, where either EPA is conducting the removal operation or responsible parties, mostly generator respondents, are acting under an administrative order compelling a cleanup, and no information is available concerning what happened to the contents of the tank before the government came onto the site.

TSCA Compliance Program Policy

The TSCA Compliance Program Policy No. 6-PCB-4, entitled "Disposal Methods for PCBs in Sludge," poses the question, "[W]hat disposal method is required for PCB waste in the form of industrial sludges or slurries?" The answer, says the TSCA policy, is dependent upon the concentration and the source of the PCBs in the waste material.

In our case, the concentration is known (pending verification) to be around 210 ppm. Nothing whatever is known about the source. The TSCA policy provides enlightenment in cases where the sludge has been "generated by processing liquid PCBs." That is, that PCBs shall not be processed into non-liquid forms in order to circumvent the high temperature incineration requirements.

No information exists to suggest that such processing resulted in the present state of the wastes in the Green Tank. Consequently, the concentration is the only reliable fact in this case to which the TSCA Policy is addressed. This fact ought to be taken together with the fact that the most nearly applicable TSCA regulation [at §761.60(g)(2)] is addressed to owners and users of waste oil, and not to EPA, or to respondents to administrative orders issued by EPA, who are not in a position of control over any process which might have generated sludge found in a tank at an abandoned hazardous waste site marked for a Superfund cleanup.

Application to the Duane Marine Situation

While the TSCA regulations provide some guidance, then, they do not offer a firm disposal rule pertaining to any relevant fact of this case, with the exeption of the rule that says that PCB substances with a concentration of between 50 and 500 ppm may be either landfilled or incinerated. Therefore, the Office of Regional Counsel took the position that, from a purely legal point of view, the environmental objectives of the TSCA regulations would not be defeated if the Duane Marine Generators landfilled the sludge.

The National Contingency Plan

The proposed revisions to the NCP, published in the Federal Register at Vol. 50, No. 29, February 12, 1985, state at page 5928 that "[f]or removal actions, EPA's policy is to pursue actions that will meet applicable or relevant standards, and criteria of other Federal environmental and public health laws to the maximum extent practicable, considering the exigencies of the situation."

At page 5929, the On-site Policy states that "[f]or on-site removal actions, the OSC should attempt to attain all Federal applicable or relevant public health or environmental standards. The OSC should consider other Federal criteria ...." (Emphasis in the original.) The Policy allows for situations where it may not be feasible to fully meet other Federal criteria. In those cases, the Policy provides that the documents in the case should specify the reasons.

For the purpose at hand, then, it should be noted that even if the TSCA regulation provided a clear instruction for the disposal of a sludge of the precise nature of the sludge in this case, that instruction would not mandate the disposition of the sludge found at the Superfund site. The TSCA regulation at 40 CFR §761.60(g)(2) is not a standard which the OSC is instructed to attempt to attain, because it was not promulgated as a "health or environmental standard," but rather as a way to prevent owners and users of contaminated oil from intentionally circumventing the substantive TSCA rules. As one of "other Federal criteria," it should have been considered--and, indeed, it was considered--by the OSC.

Finally, it should also be noted that by its own terms the On-Site/Off-Site Policy (appended to the proposed NCP revisions) does not apply to the Duane Marine Respondents, since the administrative order under which they were acting was issued in December of 1984, before the Policy was issued with the proposed revisions, on February 12, 1985, and it is not one of the situations to which the Policy was made specifically applicable. See Vol. 50 Fed. Reg., No. 29, Appendix, Part V, "Applicability," page 5930.

In the opinion of the Office of Regional Counsel, then, the OSC has taken relevant federal standards and criteria sufficiently into account by considering the possible application of the TSCA regulations to the situation at hand.

Technical Considerations

Other technical considerations affect the decision concerning the sludge. (1) The consistency of the sludge is a difficulty. It is of a heavy consistency, so as to be unpumpable. (2) The sludge has a high flammability factor (a flash point of 85 degrees Fahrenheit). (3) Other contaminants are present in the sludge, such as arsenic, lead, and other heavy metals.

These factors, taken together, make incineration a safer and environmentally more acceptable disposition than landfilling. Assuming that it is possible to remove the sludge to an incineration facility, then such a permanent remedy would eliminate the potential for further handling should a landfill become a site for cleanup at some future time.

In conclusion, the most environmentally sound means of disposal, given all the facts known at present, is to incinerate the sludge. A decision was made, accordingly, to instruct the Committee to incinerate the sludge.